

DIVISION OF FOREST PEST CONTROL

Northeastern Area State & Private Forestry

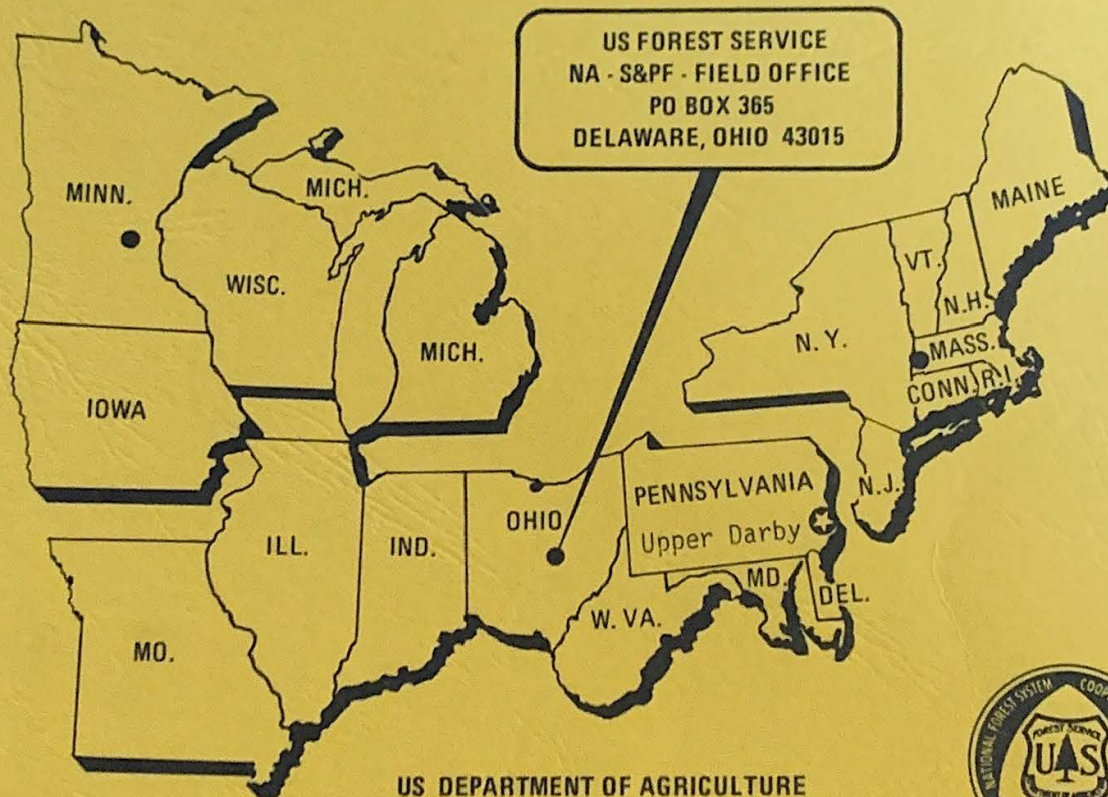


*Return to F.I. & Dm
Library*

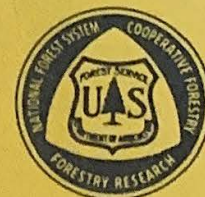
D-68-7

5220

AERIAL DETECTION SURVEY
SHAWNEE NATIONAL FOREST, 1968
BY
WILLIAM B. WHITE, ENTOMOLOGIST
JULY 1968



US DEPARTMENT OF AGRICULTURE
FOREST SERVICE



I. ORIENTATION

An aerial detection survey with ground checking was conducted June 3-7, 1968, on the 690,000 acre Shawnee National Forest, Illinois, by Delaware Forest Pest Control personnel.

Special attention was given to the Oakwood Bottoms, a high-value multiple-use area on the Murphysboro District. In this area the forest tent caterpillar, Malacosoma disstria Hübner, has been defoliating pin oaks in varying degrees since 1965 (Doerner and Hanson).

The survey revealed that about 6,000 acres of pin oak were lightly defoliated by M. disstria in the Oakwood Bottoms area.

II. SURVEY METHODS

- a. Technique: Aerial sketch mapping on 1 inch to the mile USGS topographic maps, with ground checking.
- b. Intensity: Flight lines spaced 2 to 3 miles apart flown at an elevation of 500-1000 feet at an air speed of 100 mph.
- c. Aircraft: Cessna 182
- d. Personnel:

Pilot: Sam Patchett, Air Institute Service
Carbondale, Illinois

Navigator: Bill White, Delaware FPC, S&PF
Observers: Bob Doerner and Jim Hanson
Delaware FPC, S&PF

III. RESULTS

The survey revealed only light defoliation generally distributed on pin oak over 6,000 acres in the Oakwood Bottoms area (Figure 1). Subsequent ground checking proved the defoliation was caused by the forest tent caterpillar. At that time the larvae had ceased feeding and were nearly all pupated.

IV. RECOMMENDATIONS

1. Report on parasite emergence from forest tent caterpillar cocoons collected while ground checking.
2. Make egg counts for predictive and comparative purposes.

References

Doerner, R. G., and J. B. Hanson, Evaluation of a Forest Tent Caterpillar Infestation on the Murphysboro District, Shawnee National Forest. Delaware Forest Pest Control Office Report DZ-7 (1967).

Figure 1.

